



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/887,535	06/25/2001	Sung-Hee Lee	Q65101	5805

7590

04/29/2004

SUGHRUE, MION, ZINN, MACPEAK & SEAS PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3213

EXAMINER

VO, TUNG T

ART UNIT	PAPER NUMBER
----------	--------------

2613

DATE MAILED: 04/29/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/887,535

Applicant(s)

LEE, SUNG-HEE

Examiner

Tung T. Vo

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02/04/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 02/04/02 has been considered.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "*The disclosure concerns,*" "*The disclosure defined by this invention,*" "*The disclosure describes,*" etc.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

Art Unit: 2613

international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Crinon et al. (US 6,249,6130).

Re claims 1 and 7, Crinon discloses a video decoder having a digital image stabilization function (39 of fig. 5B), the decoder comprising:

a VLD (37, 39 and 45 of fig. 5B) for separating an image information (37 of fig. 5B) and an additional information (45 of fig. 5B) from an encoded bit stream (38 of fig. 5B);

a global motion computation unit (31 of fig. 5B) for computing a global motion vector using a local motion vector with respect to a background region in an additional information from the VLD (col. 6, lines 24-67);

a time-based integration unit (43 of fig. 5B) for receiving a global motion vector (31 of fig. 5B) from the global motion computation unit and time-integrating the global motion vector based on a frame type (col. 6. lines 51-67); and

a global motion compensation unit (22, 39, 43 and 45 of fig. 5B) for stabilizing a recovery image using a global motion vector integrated by the time-based integration unit (note the mosaic decoder (45 of fig. 5B) decoding or recovering image using the global vectors, which global motion parameters are used to align and compose the images in order to reconstruct a panoramic view of the scene, also called a mosaic; the global motion parameters are also used to stabilize the video sequences generated by the video camera).

Art Unit: 2613

Re claim 2, Crinon further discloses wherein said global motion computation unit (fig. 7, in details) extracts a motion vector (42, 46, 50 of fig. 7) of the macro block unit from the additional information (MOSAIC or SKIP, 42 of fig. 7) and detects a global motion vector (50 of fig. 7).

Re claims 3 and 8, Crinon further discloses wherein said global motion computation unit includes:

- a local motion vector detector (2 of fig. 6) for receiving an additional information from the VLD and extracting the local motion vectors by the macro block unit (col. 7, lines 36-56);

- a motion separating processor (4 of fig. 6) for separating the local motion vectors extracted by the local motion vector detector and separating a local motion vector concerning the motion of the background region (col. 7, line 62 through col. 8, line 51); and

- a global motion vector detector (50 of fig. 7) for detecting one global motion vector based on the local motion vector of the background region separated by the motion separation processor.

Re claims 4 and 9, Crinon further discloses wherein said motion separation processor includes:

- a similar motion estimation unit (2 of fig. 6; and 40, 42, 44, 46, and 48) for separating the local motion vectors extracted from the local motion vector detector into a certain number of clusters (col. 7, lines 36-56) ; and a background motion selector (62, 64, 66, and 68 of fig. 8) for selecting a cluster which has a motion of the background region among the clusters separated by the similar motion estimation unit.

Art Unit: 2613

Re claims 5 and 10, Crinon further discloses wherein said time-based integration unit includes a frame type extraction unit (40 and 42 of fig. 7) for extracting a frame type from the additional information from the VLD; and a global motion vector integration unit (50 of fig. 7) for integrating the global motion vector based on the frame type extracted by the frame type extraction processor.

Re claims 6 and 11, Crinon further discloses wherein said time-based integration unit (22, 43 of fig. 5B) directly integrates the global motion vector in the case that the frame type is "I" and "P", and the B-frame in the case of B-frame (2 of fig. 6, and 40 of fig. 7, e.g. VOP comprises I, P and B frame according to MPEG-4 standard).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee et al. (US 6,222,882 B1) discloses an adaptive motion estimation method of a luminance signal.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The examiner can normally be reached on 6:30 AM - 3:00 PM.

Art Unit: 2613

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TUNG T. VO
PATENT EXAMINER

Tung T. Vo
Examiner
Art Unit 2613

T.Vo